References cited in the clinical content are classified according to the type of evidence presented. The class ratings, I through V, are intended to provide a classification of the evidence but are not necessarily hierarchical. Classifications appear in parentheses at the end of each reference. References followed by an (NC) are not classified; examples include pre-published research or information from government, manufacturer, laboratory, or patient education websites.

### Classification

<table>
<thead>
<tr>
<th>Classification</th>
<th>Type of Evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class I</td>
<td>Meta-analysis, technology assessment, or systematic review</td>
</tr>
<tr>
<td>Class II</td>
<td>Randomized controlled trial</td>
</tr>
<tr>
<td>Class III</td>
<td>Observational or epidemiologic study</td>
</tr>
<tr>
<td>Class IV</td>
<td>Evidence-based guideline</td>
</tr>
<tr>
<td>Class V</td>
<td>Expert opinion, panel consensus, literature review, text or reference book, descriptive study, case report, or case series</td>
</tr>
</tbody>
</table>

#### Class I

Class I sources synthesize the results of multiple studies. When quantitative synthesis is possible, meta-analyses can provide a more accurate estimate of the effect or association size than individual smaller studies can. A Class I study that finds insufficient evidence to support or refute an intervention (due to a lack of appropriate primary research) is inconclusive. A potential weakness of Class I studies is that they may only assess published research, potentially leaving their findings vulnerable to publication bias.
Class II
A randomized controlled trial (RCT) is an experimental study design in which subjects are randomly assigned to an intervention or a control group. An RCT is the gold standard for testing cause and effect relationships. Intention-to-treat analysis should be performed to account for missing data points.

Class III
Observational or epidemiologic studies can suggest an association between events or findings. These associations cannot be used to establish causality. Cross-sectional, cohort, and case-control studies are all used to identify possible risk factors. Cross-sectional studies are also used to determine the prevalence of a condition. Cohort studies are used to study incidence, the natural history of a condition, prognosis after a specific exposure, and associated harms. Nonrandomized controlled trials are sometimes used when randomization is impossible or unethical.

Class IV
Evidence-based guidelines are systematically developed recommendations for clinical practice. Evidence-based guidelines identify the methodology used to gather the evidence on which the recommendations are based. Usually, a grading system for both the quality of the evidence and the strength of the recommendations is provided. Guidelines that are evidence-based may also contain consensus recommendations in areas where evidence is lacking, but these recommendations are clearly identified and appropriately graded.

Class V
Class V references may be the best information in the absence of other evidence. Expert opinion, panel consensus, literature reviews, and descriptive studies (case reports or case series) are subject to significant bias. A case series with comparison to historical controls can be plagued with missing data, and data extraction inconsistencies are common. The use of historical controls does not address how the diagnosis of disease or its treatment has evolved over time with newer technologies or medication. Text book information may be out of date by the time the book is published.

Comparative Effectiveness Research (CER)

Citations are designated with the CER label as part of the evidence classification if the article cited is one of the following:

1. A clinical trial or other clinical study that directly compares two or more health care interventions for the same clinical scenario.
2. A systematic review that compares two or more health care interventions by synthesizing the research from previous clinical studies.
Bibliography


American College of Radiology. ACR Appropriateness Criteria. Acute (nonlocalized) abdominal pain and fever or suspected abdominal abscess 2012. (IV)


American Diabetes Association. Standards of Medical Care in Diabetes - 2016. Diabetes Care 2016. 39 (Supplement 1). (IV)


Balaguer and Gonzalez de Dios. Home versus hospital intravenous antibiotic therapy for cystic fibrosis. Cochrane database of systematic reviews 2012. 3:CD001917. (IV)


Barniol et al. Usefulness and applicability of the revised dengue case classification by disease: multi-centre study in 18 countries. BMC Infect Dis 2011. 11:106. (III)


Bayer. Innovations in reducing preventable hospital admissions, readmissions, and emergency room use: AHIP Center for Policy and Research; 2010. (V)


Benbadis et al. Outcome of prolonged video-EEG monitoring at a typical referral epilepsy center. Epilepsia 2004. 45(9):1150-1153. (V)


Berggren et al. Thrombocytopenia in early alcohol withdrawal is associated with development of delirium tremens or seizures. Alcohol Alcohol 2009. 44(4):382-6. (III)


Bhatia et al. Beta-Blocker Use and 30-Day All-Cause Readmission in Medicare Beneficiaries with Systolic Heart Failure. Am J Med 2014. (III)


Bhullar et al. To nearly come full circle: Nonoperative management of high-grade IV-V blunt splenic trauma is safe using a protocol with routine angioembolization. J Trauma Acute Care Surg 2017. 82(4):657-64. (II)


Boilson et al. Device therapy and cardiac transplantation for end-stage heart failure. Curr Probl Cardiol 2010. 35(1):8-64. (V)


Bouadma et al. Use of procalcitonin to reduce patients’ exposure to antibiotics in intensive care units (PRORATA trial): a multicentre randomised controlled trial. Lancet 2010. 375(9713):463-74. (II)


Brignole et al. A new management of syncope: prospective systematic guideline-based evaluation of patients referred urgently to general hospitals. Eur Heart J 2006. 27(1):76-82. (III)


Chatterjee et al. New oral anticoagulants and the risk of intracranial hemorrhage: traditional and Bayesian meta-analysis and mixed treatment comparison of randomized trials of new oral anticoagulants in atrial fibrillation. JAMA Neurol 2013. 70(12):1486-90. (I CER)


Chiang et al. Survival and long-term outcomes following bioprosthesis vs mechanical aortic valve replacement in patients aged 50 to 69 years. JAMA 2014. 312(13):1323-9. (III)


Chikwe et al. Survival and outcomes following bioprosthesis vs mechanical mitral valve replacement in patients aged 50 to 69 years. JAMA 2015. 313(14):1435-42. (III)


Chou et al. AHRQ Comparative Effectiveness Reviews. In: Glasgow Coma Scale for Field Triage of Trauma: A Systematic Review. Rockville (MD): Agency for Healthcare Research and Quality (US); 2017. (I)


Cohen et al. Clinical practice guidelines for Clostridium difficile infection in adults: 2010 update by the society for healthcare epidemiology of America (SHEA) and the infectious diseases society of America (IDSA). Infect Control Hosp Epidemiol. 31(5):431-455. (IV)


Davis et al. AARC clinical practice guideline: blood gas analysis and hemoximetry: 2013. Respir Care 2013. 58(10):1694-703. (IV)


Dickstein et al. ESC Guidelines for the diagnosis and treatment of acute and chronic heart failure 2008: the Task Force for the Diagnosis and Treatment of Acute and Chronic Heart Failure 2008 of the European Society of Cardiology. Developed in collaboration with the Heart Failure Association of the ESC (HFA) and endorsed by the European Society of Intensive Care Medicine (ESICM). Eur Heart J 2008. 29(19):2388-2442. (IV)


Doughty, Dorothy. Management of Recalcitrant Wounds. Advance for Nurses 2003; 3(9);18-20. (V)


Duley et al. Magnesium sulphate and other anticonvulsants for women with pre-eclampsia. Cochrane Database Syst Rev 2010. 11. (I)


Duray et al. Dronedarone Therapy in Atrial Fibrillation: A Summary of Recent Controlled Trials. J Cardiovasc Pharmacol Ther (I)


Frazier and Jacob. Small pumps for ventricular assistance: progress in mechanical circulatory support. Cardiol Clin 2007. 25(4):553-564; vi. (I)


From and Borlaug. Heart Failure with Preserved Ejection Fraction: Pathophysiology and Emerging Therapies. Cardiovasc Ther 2010 (V)


Garcia-Tsao and Lim. Management and treatment of patients with cirrhosis and portal hypertension: recommendations from the Department of Veterans Affairs Hepatitis C Resource Center Program and the National Hepatitis C Program. Am J Gastroenterol 2009. 104(7):1802-1829. (V)


GINA. Global strategy for asthma management and prevention; 2016. (V)


Global Initiative for Chronic Obstructive Lung Disease. Global Strategy for the Diagnosis, Management, and Prevention of Chronic Obstructive Pulmonary Disease; 2009. (IV)

Global Initiative for Chronic Obstructive Lung Disease. Global strategy for the diagnosis, management, and prevention of chronic obstructive pulmonary disease; 2014. (IV)

Global Initiative for Chronic Obstructive Lung Disease (GOLD). Global Strategy for the Diagnosis, Management and Prevention of COPD; 2018. (IV)


Hines et al. Preventing heart failure readmissions: is your organization prepared? Nurs Econ 2010. 28(2):74-85. (V)


Humm and Mathias. Unexplained syncope--is screening for carotid sinus hypersensitivity indicated in all patients aged >40 years? J Neurol Neurosurg Psychiatry 2006. 77(11):1267-70. (III)


Hunt. The current place of tranexamic acid in the management of bleeding. Anaesthesia 2015. 70 Suppl 1:50-3, e18. (V)


Hwang et al. The role of endoscopy in the management of variceal hemorrhage. Gastrointest Endosc 2014. 80(2):221-7. (IV)


Inglis et al. Structured telephone support or telemonitoring programmes for patients with chronic heart failure. Cochrane Database Syst Rev 2010. 8:CD007228. (I)


Khazanie et al. Outcomes of medicare beneficiaries with heart failure and atrial fibrillation. JACC Heart Fail 2014. 2(1):41-8. (III)


Kirchhof et al. 2016 ESC Guidelines for the management of atrial fibrillation developed in collaboration with EACTS. Europace 2016. 18(11):1609-78. (IV)


Knight-Madden and Hambleton. Inhaled bronchodilators for acute chest syndrome in people with sickle cell disease. Cochrane Database Syst Rev 2014. 8:CD003733. (I)


Laine and Jensen. Management of patients with ulcer bleeding. Am J Gastroenterol 2012. 107(3):345-60; quiz 61. (IV)


Lee. Gastroparesis: what is the current state-of-the-art for evaluation and medical management? What are the results? J Gastrointest Surg 2013. 17(9):1553-6. (V)


Lo et al., Critical Issues in the Evaluation of Adults With Suspected TIA in the ED. In: ACEP; 2016 (I)


MacIntyre et al. Evidence-based guidelines for weaning and discontinuing ventilatory support: a collective task force facilitated by the American College of Chest Physicians; the American Association for Respiratory Care; and the American College of Critical Care Medicine. Chest 2001. 120(6 Suppl):375S-395S. (IV)


Mannu et al. Age but not ABCD(2) score predicts any level of carotid stenosis in either symptomatic or asymptomatic side in transient ischaemic attack. Int J Clin Pract 2015. 69(9):948-56. (III)


McCray et al. Observation for nonoperative management of the spleen: how long is long enough? J Trauma 2008. 65(6):1354-8. (V)


Melloni et al. 2013. (I CER)


Meyer et al. Recent advances in the management of pulmonary embolism: focus on the critically ill patients. Ann Intensive Care 2016. 6(1):19. (V)


Mukherjee. Improving adherence to medications--can we make this horse drink? Am Heart J 2008. 155(4):589-590. (V)


Muraro et al. Anaphylaxis: guidelines from the European Academy of Allergy and Clinical Immunology. Allergy 2014. 69(8):1026-45. (IV)


Nada et al. The evaluation and management of drug effects on cardiac conduction (PR and QRS intervals) in clinical development. Am Heart J 2013. 165(4):489-500. (V)


Nardi et al. Recent Advances in Pediatric Ventilatory Assistance. F1000Res 2017. 6:290. (V)


National Institute for Health and Care Excellence. Transient loss of consciousness (blackouts) management in adults and young people 2010. NICE clinical guideline 109. (IV)


National Institute for Health and Clinical Excellence (NICE). Alcohol-use disorders: diagnosis and clinical management of alcohol-related physical complications. Clinical guideline 100. NICE; 2010. (IV)

National Institute for Health and Clinical Excellence (NICE). Diabetes in pregnancy; Management of diabetes and its complications from preconception to the postnatal period: NICE; 2015. (IV)


National Transitions of Care Coalition Medication Reconciliation Elements: National Transitions of Care Coalition; 2010. (V)


Ng et al. Association of Hyponatremia to Diuretic Response and Incidence of Increased Serum Creatinine Levels in Hospitalized Patients with Acute Decompensated Heart Failure. Cardiology 2014. 128(4):333-42. (III)


NICE. Tuberculosis: Clinical diagnosis and management of tuberculosis, and measures for its prevention and control 2011(117). (IV)

NICE, National Collaborating Centre for Chronic Conditions. Tuberculosis. Clinical diagnosis and management of tuberculosis, and measures for its prevention and control 2006 (revised 2016 Jan). Clinical guideline; no. 117 (64) (IV)


Page et al. Drugs That May Cause or Exacerbate Heart Failure: A Scientific Statement From the American Heart Association. Circulation 2016. (IV)


Park et al. Extracorporeal membrane oxygenation as a bridge to pulmonary transplantation in Brazil: are we ready to embark upon this new age? Clinics (Sao Paulo) 2011. 66(9):1659-61. (V)

Parks et al. Observation for nonoperative management of blunt liver injuries: how long is long enough? J Trauma 2011. 70(3):626-9. (V)


Patel et al. Hypotension during hospitalization for acute heart failure is independently associated with 30-day mortality: findings from ASCEND-HF. Circ Heart Fail 2014. 7(6):918-25. (III)


Pederson et al. Depressive symptoms are associated with higher rates of readmission or mortality after medical hospitalization: A systematic review and meta-analysis. J Hosp Med 2016. 11(5):373-80. (I)


Puggioni et al. Results and complications of the carotid sinus massage performed according to the "method of symptoms". Am J Cardiol 2002. 89(5):599-601. (III)


Rauch et al. Short-term comprehensive cardiac rehabilitation after AMI is associated with reduced 1-year mortality: results from the OMEGA study. Eur J Prev Cardiol 2014. 21(9):1060-9. (III)


Reitzenstein et al. Similar erythrocyte sedimentation rate and C-reactive protein sensitivities at the onset of septic arthritis, osteomyelitis, acute rheumatic fever. Pediatr Rep 2010. 2(1):e10. (III)


Rodriguez-Roison. From the Global Strategy for the Diagnosis, Management and Prevention of COPD, Global Initiative for Chronic Obstructive Lung Disease (GOLD) 2013. 2013:i-xvi; 1-80. (V)


Runyon. Introduction to the revised American Association for the Study of Liver Diseases Practice Guideline management of adult patients with ascites due to cirrhosis 2012. Hepatology 2013. 57(4):1651-3 (IV)


Sharma et al. Outpatient follow-up visit and 30-day emergency department visit and readmission in patients hospitalized for chronic obstructive pulmonary disease. Arch Intern Med 2010. 170(18):1664-70. (III)


Shorr et al. Predicting the need for mechanical ventilation in acute exacerbations of chronic obstructive pulmonary disease: comparing the CURB-65 and BAP-65 scores. J Crit Care 2012. 27(6):564-70. (III)


Smollin and Olson. Carbon monoxide poisoning (acute) Clin Evid 2010. (V)


Strickland et al. AARC Clinical Practice Guideline: Effectiveness of Pharmacologic Airway Clearance Therapies in Hospitalized Patients. Respir Care 2015. 60(7):1071-7. (I)


Turner. Emergency management of acute hypocalcaemia in adult patients. Society for Endocrinology 2016. (IV)


U.S. Food and Drug Administration (FDA). How to request Domperidone for gastrointestinal disorders: U.S. Food and Drug Administration (FDA); 2017. (V)

U.S. Food and Drug Administration (FDA). Medication guide Reglan (Reglan) (metoclopramide) injection; 2016. (V)


United States Nuclear Regulatory Commission. Release of individuals containing unsealed byproduct material or implants containing byproduct material. NRC Regulations Title 10, Code of Federal Regulations, section 35.75. Rockville: Goverment Printing Office; 2005. (V)


Wardlaw et al. ABCD2 score and secondary stroke prevention: meta-analysis and effect per 1,000 patients triaged. Neurology 2015. 85(4):373-80. (I)


Weekes et al. Comparison of serial qualitative and quantitative assessments of caval index and left ventricular systolic function during early fluid resuscitation of hypotensive emergency department patients. Acad Emerg Med 2011. 18(9):912-21. (V)

Weinstock et al. Risk for Clinically Relevant Adverse Cardiac Events in Patients With Chest Pain at Hospital Admission. JAMA Intern Med 2015. (III)

Weismann et al. Clinical aspects of symptomatic hyponatremia. Endocr Connect 2016. (IV)


Wilkins et al. Diagnosis and management of acute diverticulitis. Am Fam Physician 2013. 87(9):612-20. (V)


Yeh et al. Regional cost variation for acute pancreatitis in the U.S. JOP 2014. 15(5):448-54. (III)


Zipes et al. ACC/AHA/ESC 2006 Guidelines for Management of Patients With Ventricular Arrhythmias and the Prevention of Sudden Cardiac Death: a report of the American College of